

Doc.IWG-6/
20 June 2002
C. E. "Ed" Evans
<mailto:evansc@wshb.com>

Informal Working Group 6

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

WRC-2003 Agenda Item 1.36: *to examine the adequacy of the frequency allocations for HF broadcasting from about 4 MHz to 10 MHz, taking into account the seasonal planning procedures adopted by WRC-97;*

BACKGROUND. Since prior to HFBC WARC-84 it was recognized that there was inadequate spectrum worldwide for the Broadcasting Service, and especially in the band 4-10 MHz. Broadcasting Service proposals submitted to WARC-92 identified the need for 700 kHz of additional spectrum below 10 MHz. However, WARC-92 only allocated 200 kHz, specifically,

5900-5950 kHz	= 50 kHz
7300-7350 kHz	= 50 kHz
<u>9400-9500 kHz</u>	<u>= 100 kHz</u>
Total	= 200 kHz

In addition, RR 5.134 limits these frequencies to single sideband (SSB) emissions or any other spectrum efficient methods recommended by ITU-R. RR 5.136 allocates these bands to other services until 1 April 2007. Resolution 537(**WRC-97**) called for a survey of HF broadcasting transmitters and receivers with emphasis on the worldwide distribution of SSB transmitters and receivers. ITU-R completed this survey in 1999 and submitted its report at WRC-2000, concluding that the limited availability of SSB transmitters and receivers did not justify the mandated conversion from DSB to SSB.

ITU-R Working Party 6E, in drafting the CPM text for Agenda Item 1.36, provided further evidence that there is a serious shortage of spectrum available to the HF Broadcasters. The CPM text shows the need for some 800 kHz of additional spectrum to eliminate the current situation of co-channel and adjacent channel collisions now taking place worldwide in the 6, 7, and 9 MHz broadcasting bands. This is based on actual data for the year 2000, collected at the regional high frequency coordinating conferences (introduced by WRC-97 as part of Article S12).

Additionally, there is the data from the FCC-licensed broadcasters. These HF Broadcasters are currently using, on a non-interference basis, some 80 frequency hours in the WARC-92 bands and another 350-plus hours of "Out of Band" use elsewhere in the spectrum not allocated to the broadcasting service. Figures on a worldwide basis may be deduced from the seasonal schedules required by Article S12, and administered by the High Frequency Coordinating Conference (HFCC).

The results of the previously referred to studies on HF Broadcasting spectrum requirements confirm that the following proposed additional spectrum below 10 MHz would reduce considerably the present spectrum deficiencies for this service:

4500-4650 kHz = 150 kHz
 5060-5250 kHz = 90 kHz
 5840-5900 kHz = 60 kHz (*)
 7350-7650 kHz = 300 kHz (*)(**)
 9290-9400 kHz = 110 kHz (*)
 9900-9940 kHz = 40 kHz (*)
850 kHz

* Band adjacent to the HF broadcasting bands governed by Article S12

** Band location may need to be revised in light of actions decided with respect to WRC-03 agenda item 1.23

All of these bands are currently allocated to the fixed and/or mobile services.

Proposals

USA/1.36/1

4438-4650 kHz

Allocation to services			
	Region 1	Region 2	Region 3
MOD	4438-4500-4650 FIXED MOBILE except aeronautical mobile (R)		4 438-4500 4650 FIXED MOBILE except aeronautical mobile
MOD	<u>4 500-4 650</u> <u>BROADCASTING 5.uuu</u>		

ADD 5.uuu The band 4500-4650 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, as well as to the following services: in Regions 1 and 2 to the mobile except aeronautical mobile (R) service on a primary basis and in Region 3 to the mobile except aeronautical mobile service on a primary basis, subject to application of the procedure referred to in Resolution XXX. After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

USA/1.36/2

5 060-5250 kHz

MOD	Allocation to services		
	Region 1	Region 2	Region 3
	5 060-5 250	FIXED Mobile except aeronautical mobile 5.133 BROADCASTING 5.vvv	

ADD 5.vvv The band 5060-5250 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, and to the mobile except aeronautical mobile service on a secondary basis, subject to application of the procedure referred to in Resolution XXX. After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

USA/1.36/3

5730-5900 kHz

MOD	Allocation to services		
	Region 1	Region 2	Region 3
	5 730-5900 <u>5840</u> FIXED LAND MOBILE	5 730-5900 <u>5840</u> FIXED MOBILE except aeronautical mobile (R)	5 730-5900 <u>5840</u> FIXED Mobile except aeronautical mobile (R)
MOD	<u>5 840-5900</u> BROADCASTING 5.www		

ADD 5.www The band 5840-5900 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, as well as to the following services: in Region 1 to the land mobile service on a primary basis, in Region 2 to the mobile except aeronautical mobile (R) service on a primary basis, and in Region 3 to the mobile except aeronautical mobile (R) service on a secondary basis, subject to application of the procedure referred to in Resolution XXX. After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

USA/1.36/4

7 350-8100 kHz

Allocation to services			
	Region 1	Region 2	Region 3
MOD	7 350-8100 <u>7650</u>	FIXED Land mobile 5.144 BROADCASTING 5.xxx	
MOD	<u>7650-8100</u>	FIXED Land mobile 5.144	

ADD 5.xxx The band 7350-7650 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, as well as to the land mobile service on a secondary basis, subject to application of the procedure referred to in Resolution XXX. After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

USA/1.36/5

9040-9400 kHz

Allocation to services			
	Region 1	Region 2	Region 3
MOD	9 040-9400 <u>9290</u>	FIXED	
MOD	<u>9290-9400</u>	BROADCASTING 5.yyy	

ADD 5.yyy The band 9290-9400 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, subject to application of the procedure referred to in Resolution XXX. After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

USA/1.36/6**9900-9995 kHz**

Allocation to services			
	Region 1	Region 2	Region 3
MOD	9 900-9 995 9940	<u>BROADCASTING 5.zzz</u>	
MOD	<u>9940-9995</u>	FIXED	

ADD **5.zzz** The band 9900-9940 kHz is allocated, until 1 April 2007, to the fixed service on a primary basis, subject to application of the procedure referred to in Resolution XXX. After 1 April 2007, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on the condition that administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.

REASON

To provide additional spectrum to the broadcasting service and to provide a transition period for the previously allocated services.

USA/1.36/7**ADD Resolution XXX****RESOLUTION XXX**

**Implementation of changes in frequency allocations
between 4 500 kHz and 9 940 kHz**

The World Radiocommunication Conference (Geneva, 2003),

considering

- a) that parts of the frequency bands between 4 500 kHz and 9 940 kHz which were previously allocated on an exclusive or shared basis to the fixed and mobile services have been reallocated to the broadcasting service;
- b) that some existing fixed and mobile assignments may need to be removed progressively from those reallocated bands to make way for the broadcasting service;

c) that the assignments to be removed, termed “displaced assignments”, must be reaccommodated in other appropriate frequency bands;

d) that developing countries may require special assistance from the Radio-communication Bureau, in replacing their displaced assignments with appropriate protection;

e) that procedures already exist in Article 11 that may be used to this effect,

recognizing

the difficulties that administrations and the Bureau might encounter during the period of transition from the previous allocations to those made by WRC 2003,

resolves

1 that the duration of the transition period shall be from x July 2003 to 1 April 2007;

2 that administrations should no longer notify any frequency assignments to stations of the fixed and mobile services in the reallocated bands. Assignments notified in these bands after x July 2003 shall bear a symbol to indicate that the finding will be examined by the Bureau as of 1 April 2007 in accordance with the provisions of No. 11.31;

3 that the Bureau shall undertake a continuing action to review the Master International Frequency Register with the help of administrations. In this respect, the Bureau shall periodically consult the administrations concerning the frequency assignments to links for which another satisfactory means of telecommunication exists, with a view to either downgrading assignments of class of operation A or deleting such assignments;

4 that administrations shall, for assignments of class of operation A in the reallocated bands, either notify the replacement frequencies to the Bureau or request the Bureau’s assistance in selecting the replacement frequencies in application of Articles 7 and 13;

5 that the Bureau shall develop in due time a draft procedure to be used for the replacement of remaining frequency assignments and shall consult administrations in accordance with Article 14;

6 that the Bureau should modify the draft procedures taking into account, to the extent practicable, comments received from administrations, and propose replacement assignments at the latest three years before 1 April 2007. In so doing, the Bureau shall request administrations to take appropriate action to bring their assignments in conformity with the Table of Frequency Allocations by the due date;

7 that a replacement frequency assignment whose basic characteristics, with the exception of the assigned frequency, have not been modified in the above process, shall keep its original date. However, if these basic characteristics of a replacement frequency assignment are different from those of the displaced assignment, the replacement assignment shall be treated in accordance with the relevant provisions of Section II of Article 11,

invites administrations

when seeking reaccommodation of the displaced assignments for their fixed and mobile services in the bands between 4 500 kHz and 9 940 kHz which have been reallocated to the broadcasting service, to make every effort to find replacement assignments in the bands allocated to the fixed and mobile services concerned.

REASON

To facilitate an orderly transition from fixed and mobile allocations to a broadcasting allocation.